FIG. 1

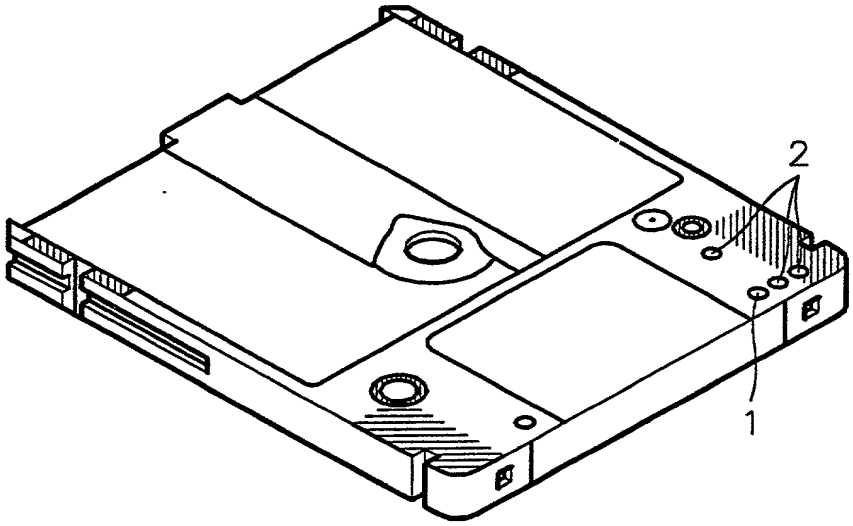

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FIG. 2

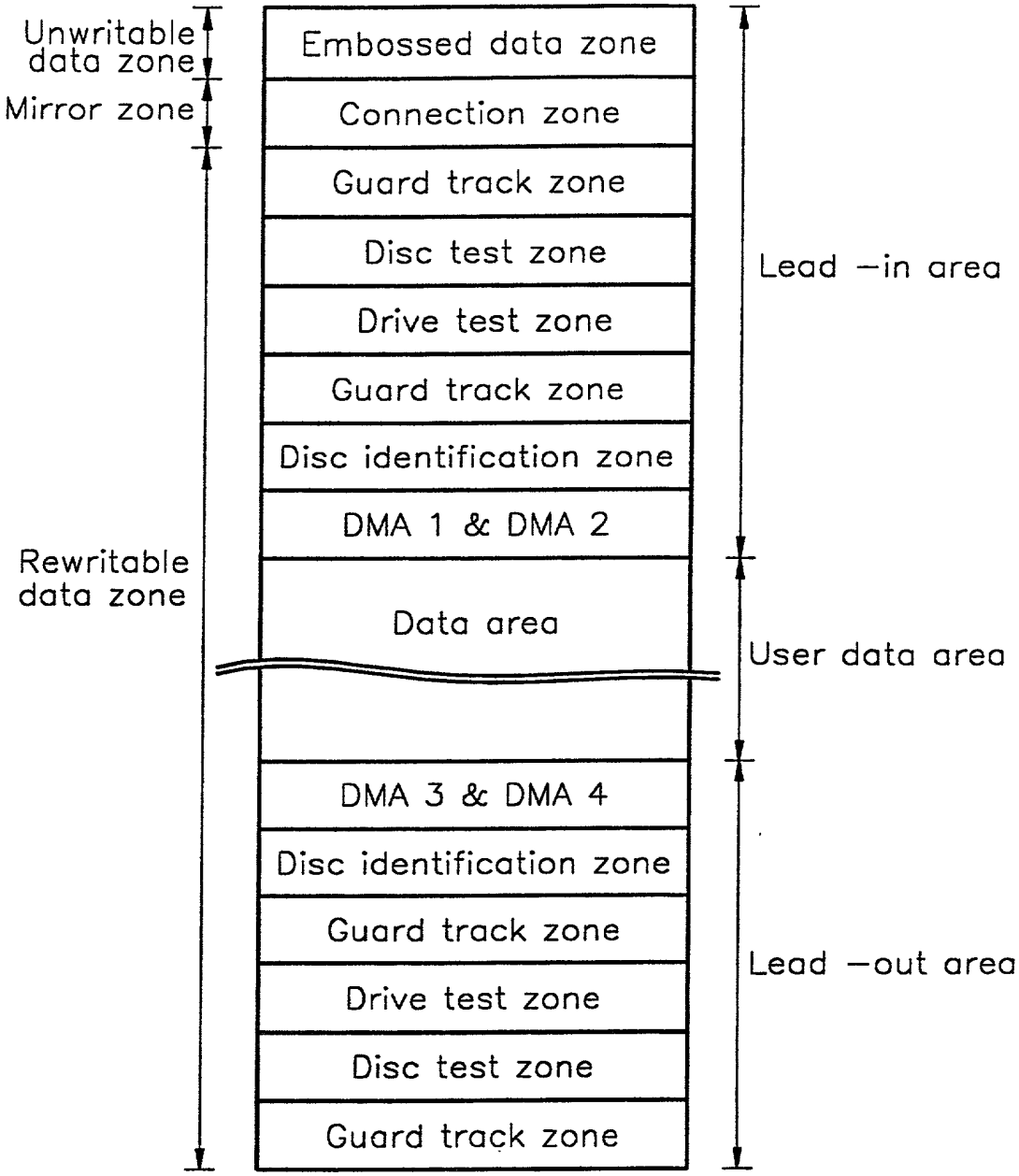
Unwritable data zone
Mirror zone
Rewritable data zone
Embossed data zone
Connection zone
Guard track zone
Disc test zone
Drive test zone
Guard track zone
Disc identification zone
DMA 1 & DMA 2
Data area
DMA 3 & DMA 4
Disc identification zone
Guard track zone
Drive test zone
Disc test zone
Guard track zone
Lead -in area
User data area
Lead -out area

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FIG. 3A

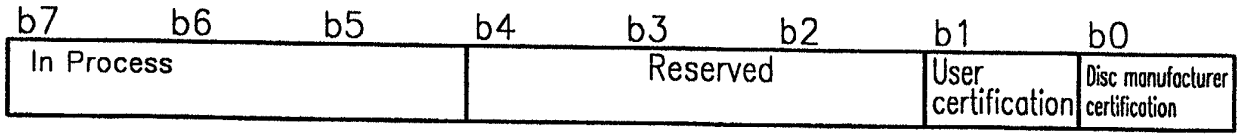

FIG. 3B

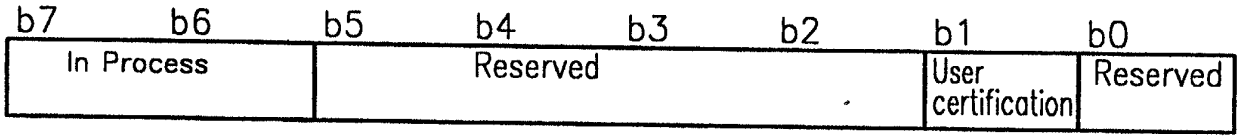

FIG. 4A

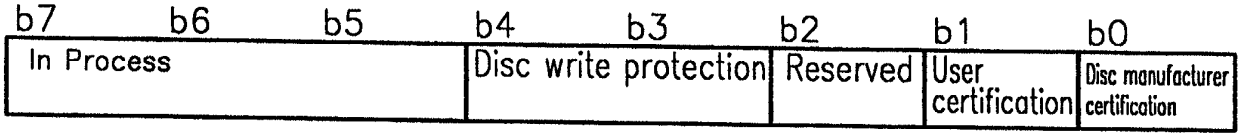

FIG. 4B

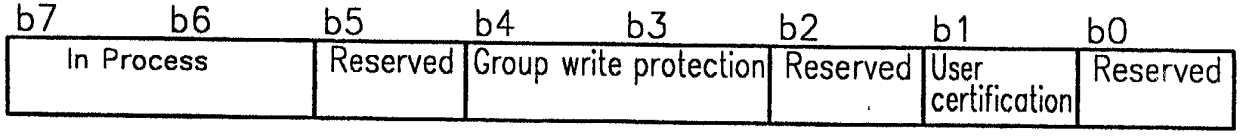

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FIG. 5A

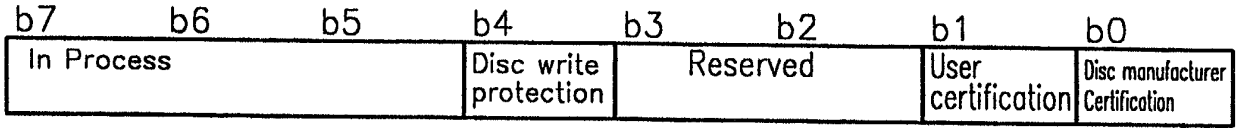

FIG. 5B

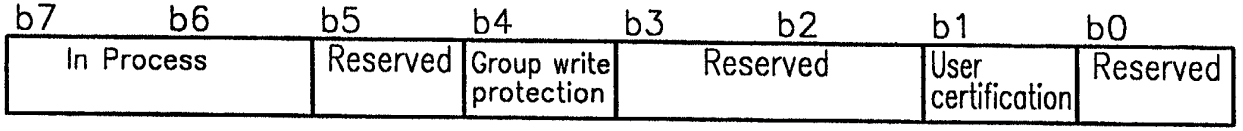

FIG. 6A

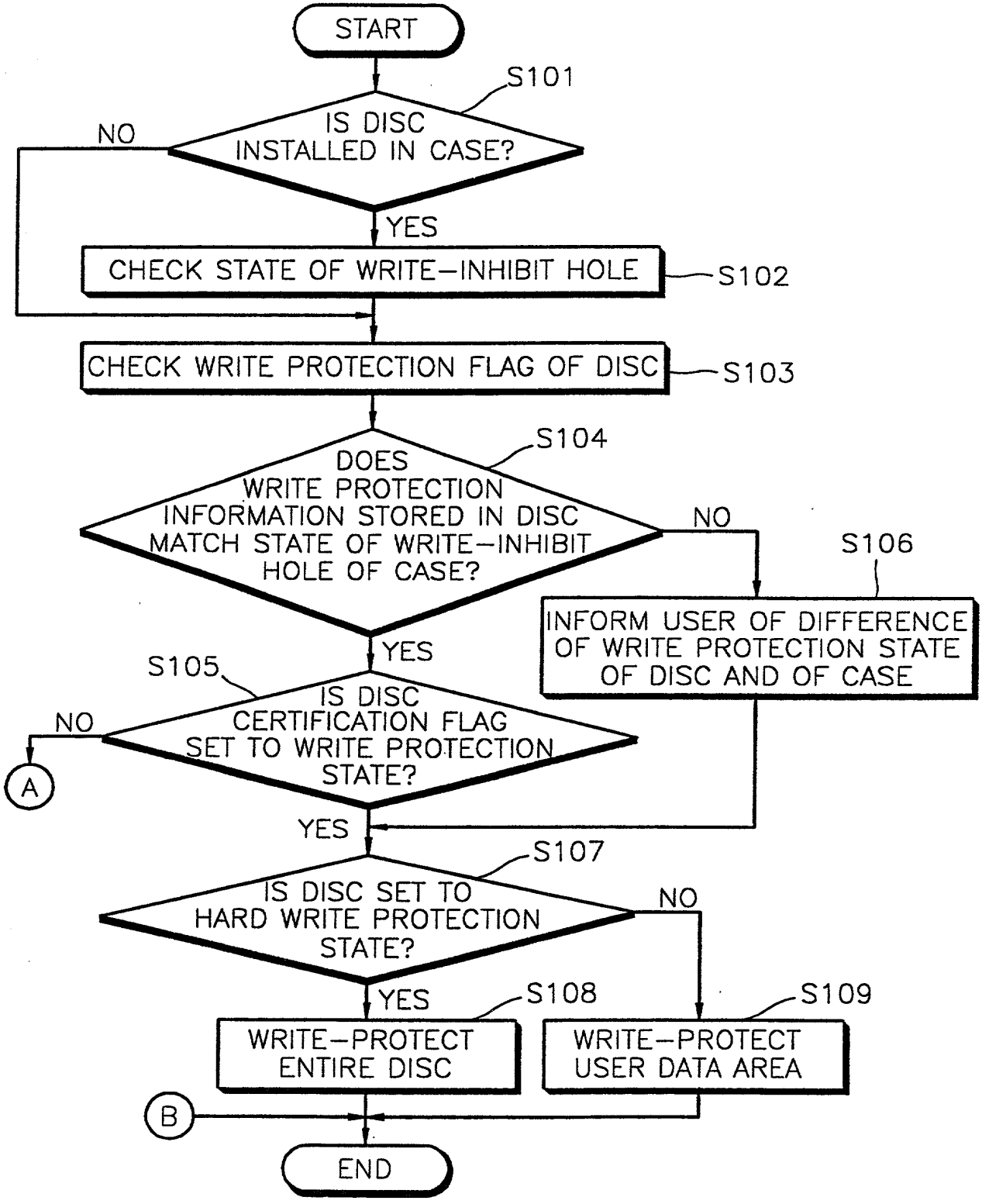
START
S101
IS DISC INSTALLED IN CASE?
NO
YES
CHECK STATE OF WRITE-INHIBIT HOLE
S102
CHECK WRITE PROTECTION FLAG OF DISC
S103
S104
DOES WRITE PROTECTION INFORMATION STORED IN DISC MATCH STATE OF WRITE-INHIBIT HOLE OF CASE?
NO
S106
INFORM USER OF DIFFERENCE OF WRITE PROTECTION STATE OF DISC AND OF CASE
YES
S105
IS DISC CERTIFICATION FLAG SET TO WRITE PROTECTION STATE?
NO
A
YES
S107
IS DISC SET TO HARD WRITE PROTECTION STATE?
NO
YES
S108
WRITE-PROTECT ENTIRE DISC
S109
WRITE-PROTECT USER DATA AREA
B
END

FIG. 6B

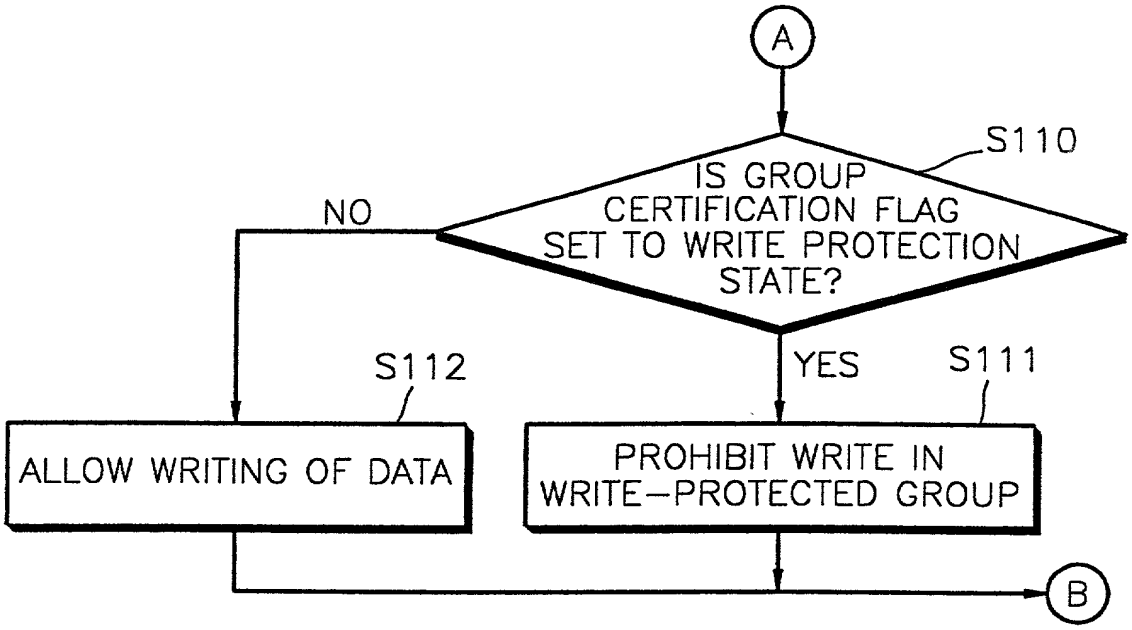
A
S110
IS GROUP CERTIFICATION FLAG SET TO WRITE PROTECTION STATE?
NO
YES
S112
S111
ALLOW WRITING OF DATA
PROHIBIT WRITE IN WRITE-PROTECTED GROUP
B

FIG. 7

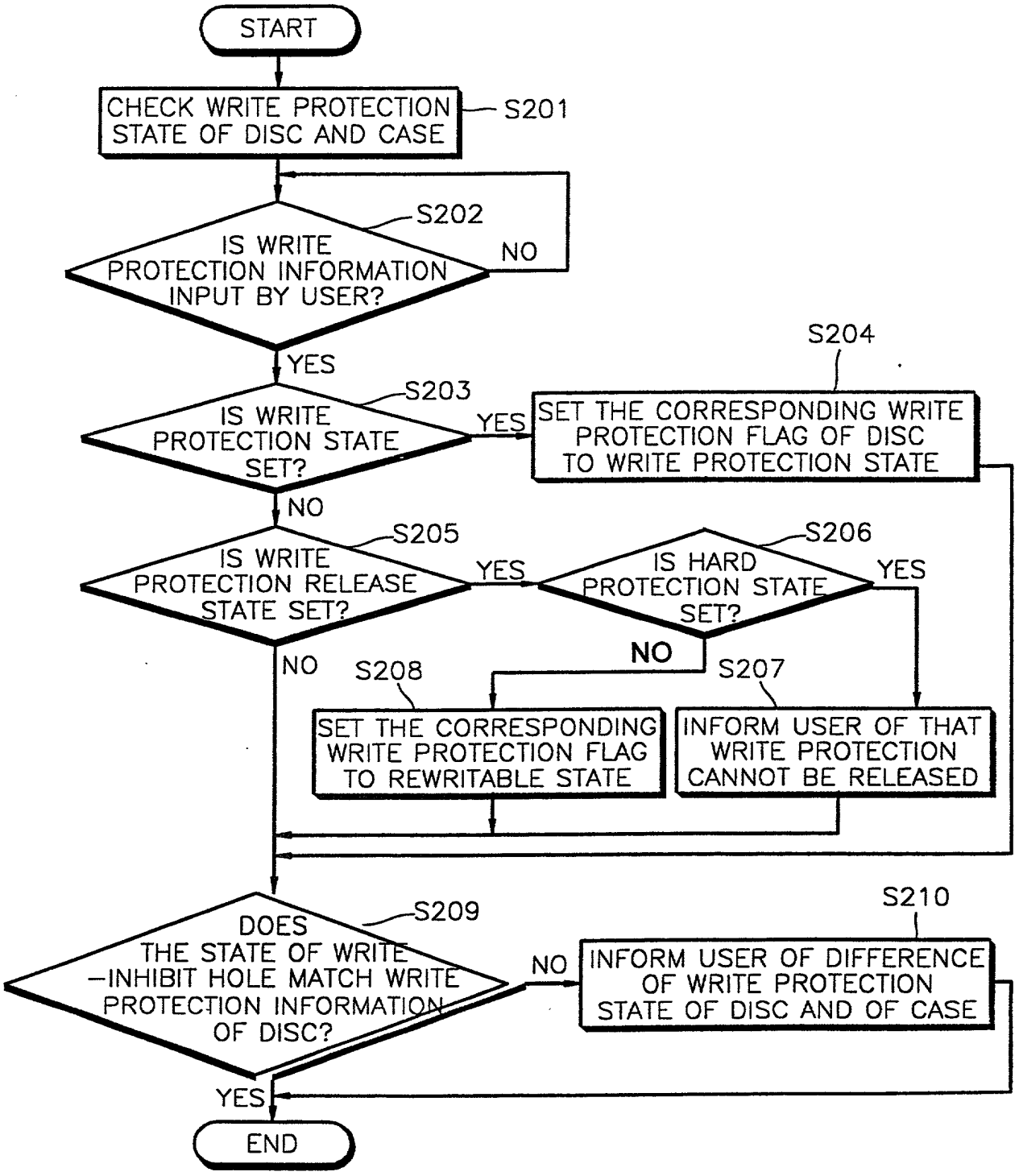
START
CHECK WRITE PROTECTION STATE OF DISC AND CASE
S201
S202
IS WRITE PROTECTION INFORMATION INPUT BY USER?
NO
YES
S203
IS WRITE PROTECTION STATE SET?
YES
S204
SET THE CORRESPONDING WRITE PROTECTION FLAG OF DISC TO WRITE PROTECTION STATE
NO
S205
IS WRITE PROTECTION RELEASE STATE SET?
YES
S206
IS HARD PROTECTION STATE SET?
YES
NO
NO
S208
SET THE CORRESPONDING WRITE PROTECTION FLAG TO REWRITABLE STATE
S207
INFORM USER OF THAT WRITE PROTECTION CANNOT BE RELEASED
S209
DOES THE STATE OF WRITE-INHIBIT HOLE MATCH WRITE PROTECTION INFORMATION OF DISC?
NO
S210
INFORM USER OF DIFFERENCE OF WRITE PROTECTION STATE OF DISC AND OF CASE
YES
END

FIG. 8

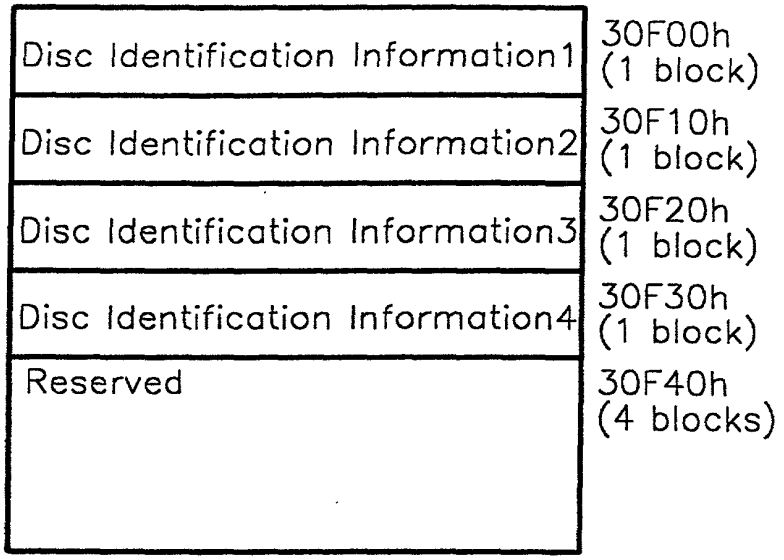
Disc Identification Information1
30F00h
(1 block)
Disc Identification Information2
30F10h
(1 block)
Disc Identification Information3
30F20h
(1 block)
Disc Identification Information4
30F30h
(1 block)
Reserved
30F40h
(4 blocks)

FIG. 9

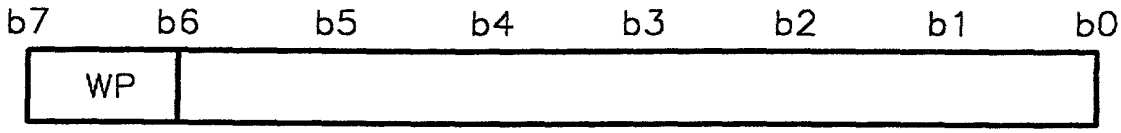
b7
b6
b5
b4
b3
b2
b1
b0
WP

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FIG. 10

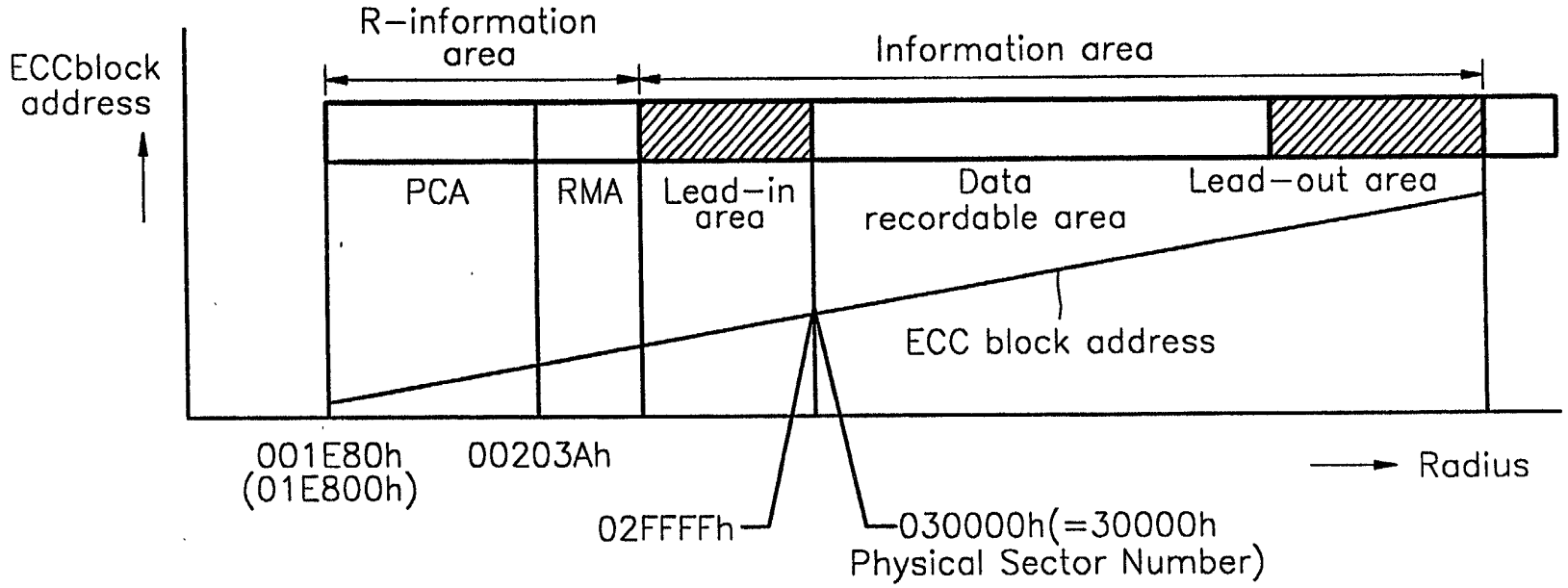


FIG. 11

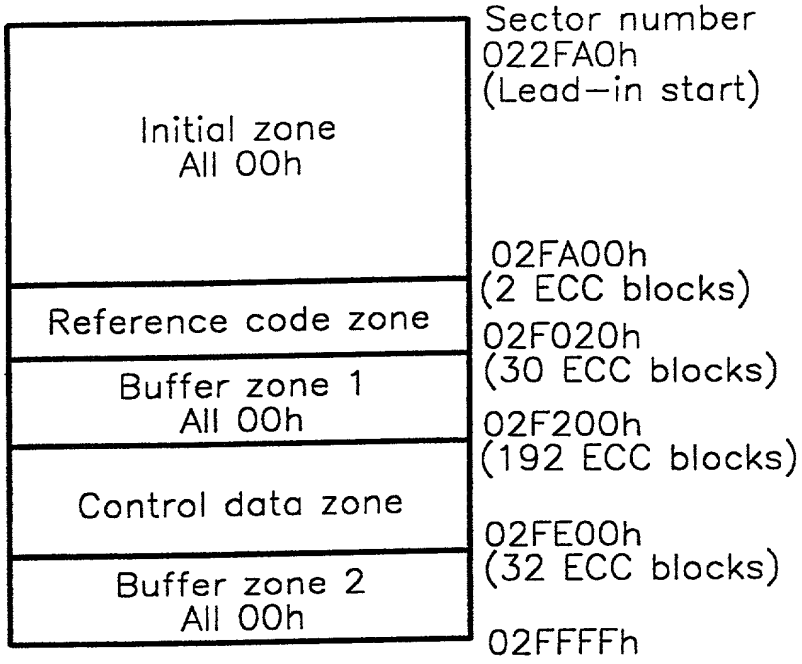

Initial zone
All 00h
Reference code zone
Buffer zone 1
All 00h
Control data zone
Buffer zone 2
All 00h
Sector number
022FA0h
(Lead-in start)
02FA00h
(2 ECC blocks)
02F020h
(30 ECC blocks)
02F200h
(192 ECC blocks)
02FE00h
(32 ECC blocks)
02FFFFh

FIG. 12

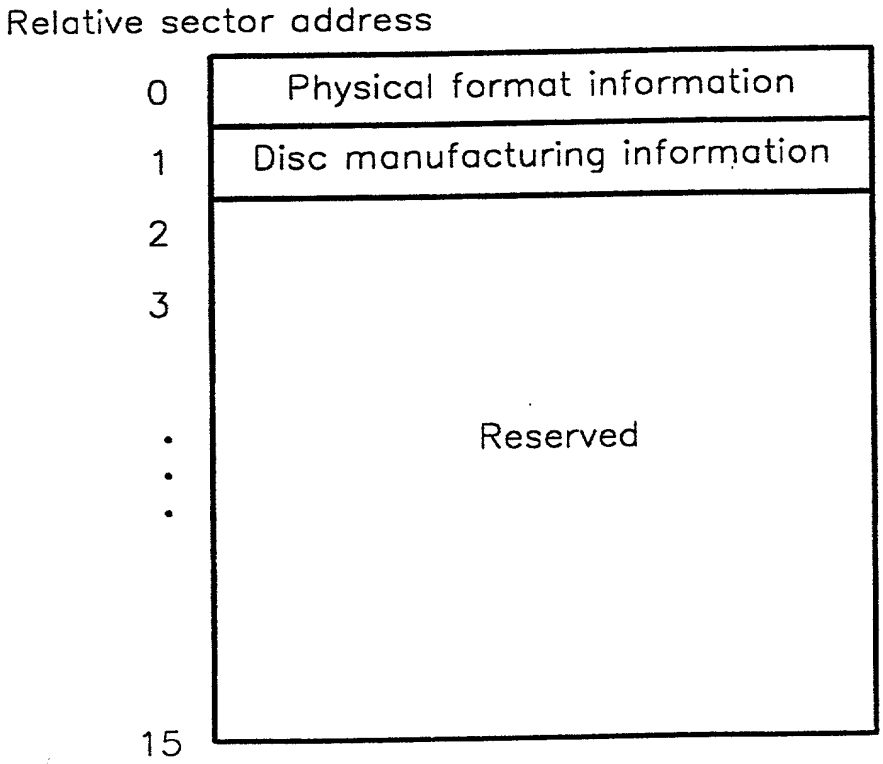

Relative sector address
0
1
2
3
15
Physical format information
Disc manufacturing information
Reserved

FIG. 13

<table>
<tr><th>Sector #</th><th>RMD Field</th><th>DVD−R(Ver 1.9)</th><th>DVD−RW</th></tr>
<tr><td>0</td><td></td><td colspan="2">Linking−loss area</td></tr>
<tr><td>1</td><td>0</td><td colspan="2">General information of disc</td></tr>
<tr><td>2</td><td>1</td><td colspan="2">OPC related information</td></tr>
<tr><td>3</td><td>2</td><td colspan="2">User specific data</td></tr>
<tr><td>4</td><td>3</td><td colspan="2">Border zone information</td></tr>
<tr><td>5</td><td>4</td><td rowspan="9">Rzone information</td><td>RZone information</td></tr>
<tr><td>6</td><td>5</td><td rowspan="8">Defect management & certification related information</td></tr>
<tr><td>7</td><td>6</td></tr>
<tr><td>8</td><td>7</td></tr>
<tr><td>9</td><td>8</td></tr>
<tr><td>10</td><td>9</td></tr>
<tr><td>11</td><td>10</td></tr>
<tr><td>12</td><td>11</td></tr>
<tr><td>13</td><td>12</td></tr>
<tr><td>14</td><td>13</td><td colspan="2" rowspan="2">Reserved</td></tr>
<tr><td>15</td><td>14</td></tr>
</table>

post-1998-0021-Fed

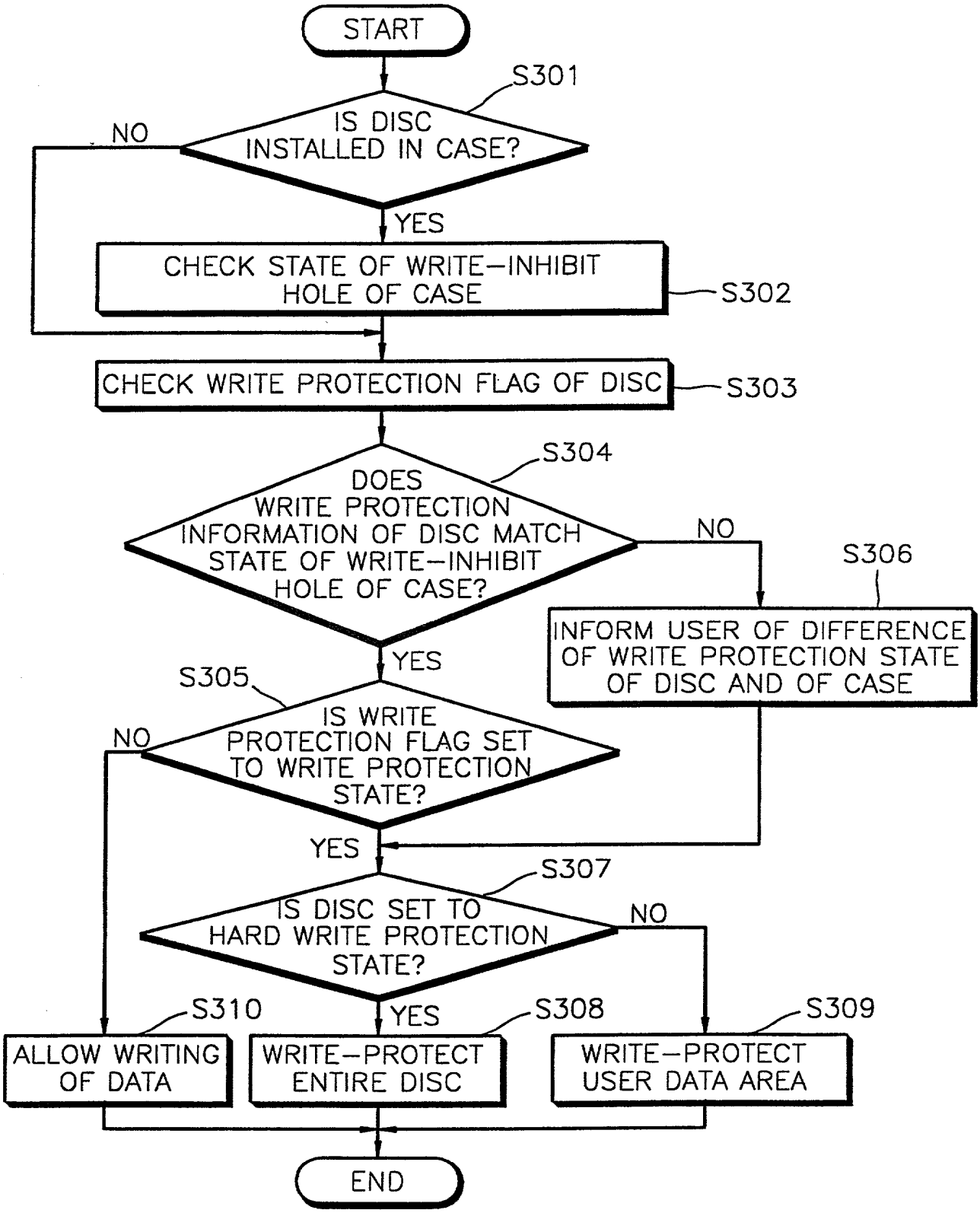
FIG. 14

BP	Contents	Number of bytes
0,1	RMD format	2
2	Disc status	1
3	Reserved	1
4 to 21	Unique disc identifier	18
22 to 85	Copy of Pre-pit Information	64
86 to 2047	Reserved	1962

FIG. 15

BP	Contents	Number of bytes
0,1	RMD format	2
2	Disc status	1
3	Write protection flag	1
4 to 21	Unique disc identifier	18
22 to 85	Copy of Pre-pit Information	64
86 to 2047	Reserved	1962

FIG. 16


START
S301
IS DISC INSTALLED IN CASE?
NO
YES
CHECK STATE OF WRITE-INHIBIT HOLE OF CASE
S302
CHECK WRITE PROTECTION FLAG OF DISC
S303
S304
DOES WRITE PROTECTION INFORMATION OF DISC MATCH STATE OF WRITE-INHIBIT HOLE OF CASE?
NO
S306
INFORM USER OF DIFFERENCE OF WRITE PROTECTION STATE OF DISC AND OF CASE
YES
S305
IS WRITE PROTECTION FLAG SET TO WRITE PROTECTION STATE?
NO
YES
S307
IS DISC SET TO HARD WRITE PROTECTION STATE?
NO
YES
S310
ALLOW WRITING OF DATA
S308
WRITE-PROTECT ENTIRE DISC
S309
WRITE-PROTECT USER DATA AREA
END